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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,815

11/04/2003

Hiroyuki Ishida

Q77547

4439

23373 7590 01/10/2007
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EXAMINER

REHM, ADAM C

ART UNIT

PAPER NUMBER

2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/699,815

Applicant(s)

ISHIDA ET AL.

Examiner

Adam C. Rehm

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5, 7, 9, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over MURATA (US 4,935,665) and further in view of VRIENS ET AL (US 5,813,753).
2. MURATA discloses:
 - A semiconductor light-emitting element (Figs. 1 and 2);
 - An optical system (Fig. 1 generally) comprising a reflector (14/15, Column 3, Lines 46-48) and a rectangular lens/body that is rotationally asymmetrical relative to an optical axis (31/3, Fig. 16 illustrates a rectangular/asymmetrical body filled around LEDs 2; or 7, Figs. 14, 17 and 18 illustrate a rectangular/asymmetrical body filled around LEDs 2);
 - A focal point of said optical system being on or near a light-emitting surface (3) of said light-emitting element (Fig. 1, Column 4, Lines 32-43);
 - Said light-emitting surface having a horizontally elongated/rectangular shape in a direction orthogonal to an optical axis of said light-emitting element when viewed in the direction of the optical axis of said light-emitting element (3, Fig. 12);

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- Said optical system forming a light distribution pattern by enlarging a light pattern of said light-emitting surface in a horizontal direction (31, Fig. 14);
- A plurality of semiconductor chips (2) arranged in a single line/array/rectangular matrix (Fig. 16) having a semi-cylindrical transparent member covering said semiconductor chips (Figs. 16 and 17);
- A plurality of semiconductor chips (2) arranged in an array (Fig. 16) whereby a rotationally asymmetric light intensity distribution can be obtained around the optical axis of the light-emitting element by causing a plurality or all of said semiconductor chips to radiate light (Figs. 16 and 17 illustrate an asymmetrical/oval transparent member covering said semiconductor chips that distributes light in a corresponding rotationally asymmetric/oval nature upon radiation of the chips).

3. MURATA discloses the claimed invention including a rotationally asymmetric body filled around a semiconductor chip (31/3/7, Figs. 14 and 16-18) as cited above, but does not disclose a fluorescent body. However, VRIENS teaches the use of a fluorescent, phosphor material disposed about a light source (Fig. 2) for the purpose of enhancing the efficiency of the device (Column 2, Lines 33-41). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the fluorescent material of VRIENS into MURATA to provide a light source with enhanced efficiency.

4. Regarding Claim 10, MURATA discloses the claimed invention as cited above, except for the ones of said semiconductor chips of different sizes. However, it would

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have been obvious to one of ordinary skill in the art at the time of invention to incorporate chips of different shapes for the purpose of projecting various light distribution patterns, since such a modification would have involved a mere change in the shape of the component. Notably, a change in form of any element of prior patent must result in more than useful natural phenomenon that man has accumulated through common knowledge. *Span-Deck Inc. v. Fab-Con Inc.*, 215 USPQ 835. Such features cannot sustain patentability where involved is only extended application of obvious attributes from prior art. *Id.* In the case at hand, the advantage of changing the shape of the chips would permit the emission of various patterns.

5. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over MURATA (US 4,935,665) in view of VRIENS ET AL (US 5,813,753) as applied to Claim 1 above, and further in view of SEGOSHI (US 4,868,726). MURATA substantially discloses the claimed invention, but does not disclose semiconductor chips shaped and arranged to produce a projected light pattern having a cut line for a headlamp low beam. However, cut lines and the advantages thereof are well known in the art. SEGOSHI teaches a blind in order to intercept light from a low beam (6, Column 1, Lines 33-41) for the purpose of preventing dazzle or glare to oncoming traffic (Column 1, Lines 42-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify MURATA to include the blind as taught by SEGOSHI in order to produce a light pattern having a cut line in order to control emitted light.

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Pre-Appeal Brief Request for Review

6. As noted in the Notice of Panel Decision from Pre-Appeal Brief Review dated 10/4/2006, the previous grounds for rejection were withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of VRIENS ET AL (US 5,813,753).

Conclusion/Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ACR

12/26/2006

A handwritten signature in black ink, appearing to read 'T. M. Sember', with a long, sweeping horizontal stroke extending to the right.

THOMAS M. SEMBER
PRIMARY EXAMINER